

### **Abstract of Disclosure**

This invention relates to apparatuses for non-contact three-dimensional measurement of bodies and methods for determining a system of coordinates for measuring points on an apparatus for non-contact three-dimensional measurement of bodies. The apparatus and the method are characterized by particular simplicity and easy implementation. Advantageously, this makes the apparatus and method applicable in production sites for special workpieces. This opens up a wide and highly cost-efficient range of uses. Before the workpieces are measured, a system of coordinates for three-dimensional matching of the workpiece geometry is determined in a first measurement. A body with known dimensions of its edges or lines is placed on any position on the turntable and measured during one rotation using the triangulation sensor. The apparatus according to the invention is thus characterized by its minimal design. The low number of movements required, i.e. one translatory movement of the triangulation sensor and a rotational movement of the turntable, results in determining the outline of a body with a minimal error of measurement.